

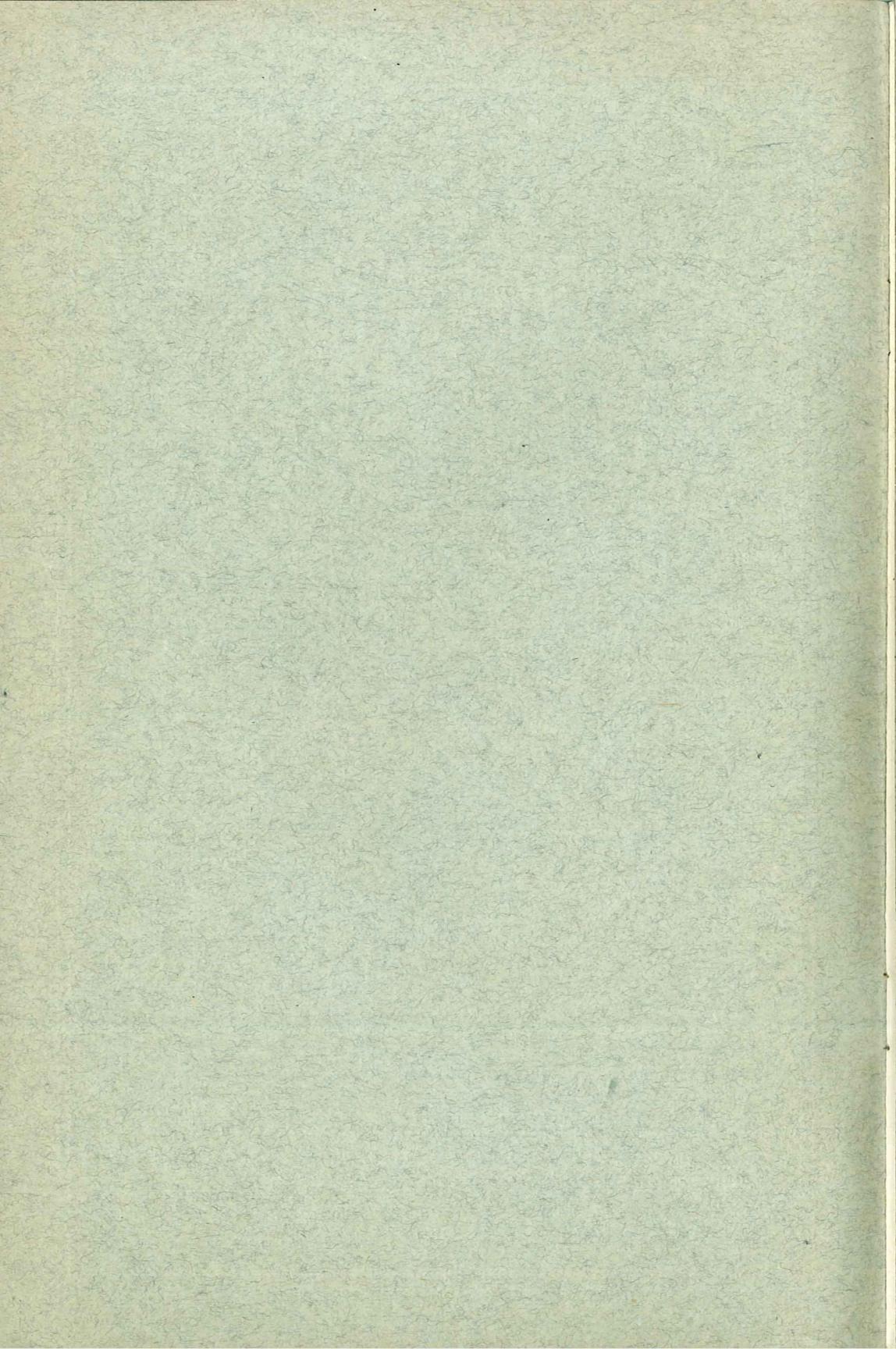
# WISE

*Warm Air  
Furnaces*

200 SERIES  
PATENTED

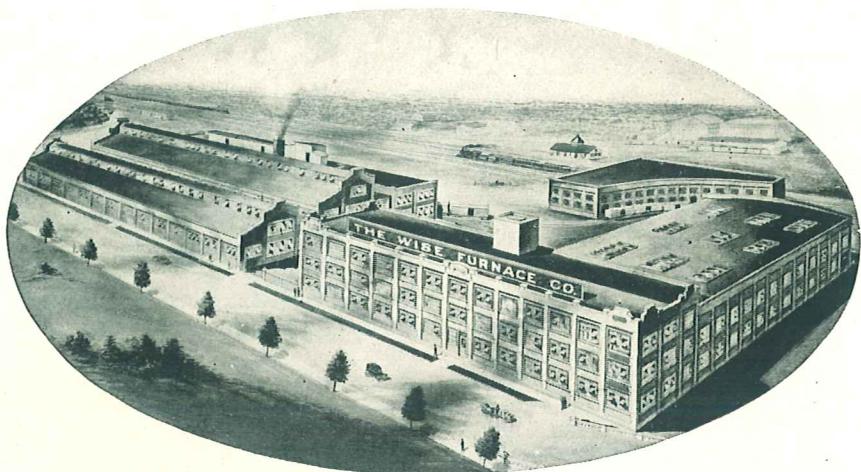
THE WISE  
FURNACE  
CO.

AKRON, OHIO



CATALOG No. 19

THE "WISE"  
WARM AIR FURNACE  
200 SERIES



HOME OF THE WISE FURNACE



TRADE MARK

*Our Guarantee*

HIGHEST QUALITY, BEST WORKMANSHIP  
ABSOLUTE SATISFACTION TO OUR CUSTOMERS

THE WISE FURNACE COMPANY

*Manufacturers of Warm Air Heaters*

A K R O N , O H I O , U . S . A .



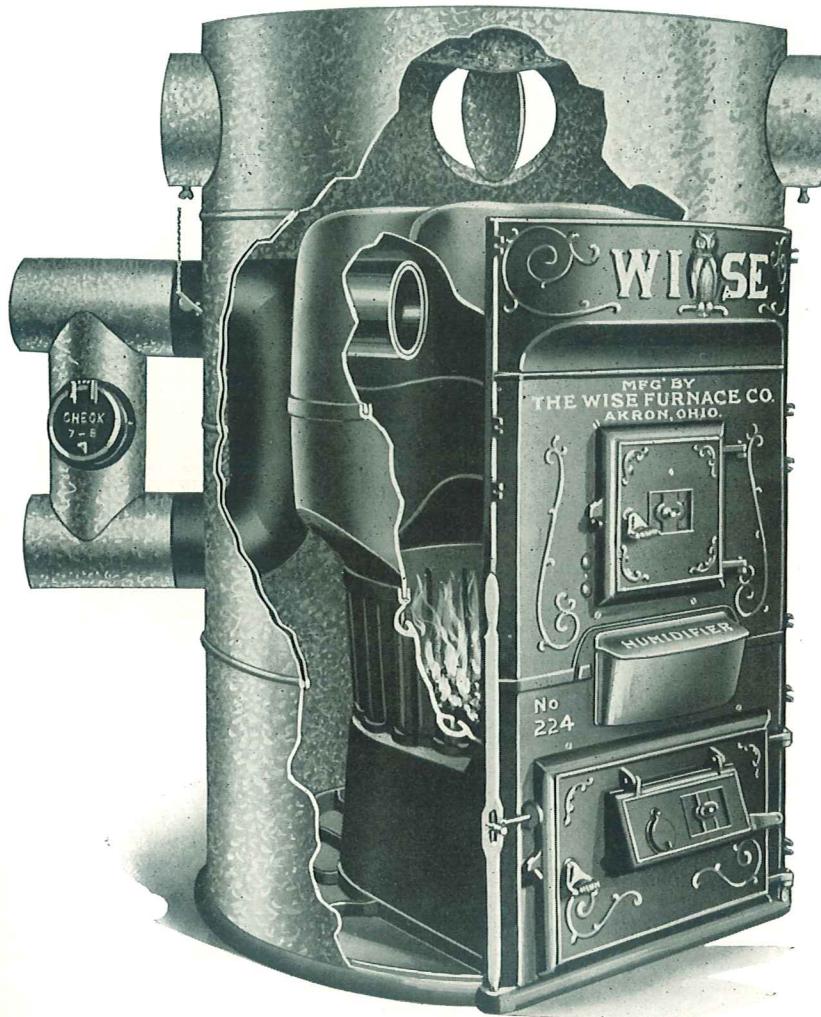
## *Introductory*

The past few years of prosperity and unequalled growth of The Wise Furnace Company again brings back to mind that unalterable rule of cause and effect.

In judging the past or reckoning with the future, there is no better guide, and so with pride we point to the progress made and assured.

In presenting this booklet for your perusal, we aim to show the success of the one great object of The Wise Furnace Company to manufacture and give to the Public a heater that will bring to the user the most satisfying results at the least expense of fuel and labor, with freedom from repairs, the highest efficiency and a durability far greater than that of any other furnace. The WISE Furnace fills these requirements exactly, and the constantly increasing demand for, and popularity of the Wise is only a realization on the part of the many users of, and dealers in, Wise Furnaces that nowhere else can they get as much real value for their money.

## Wise 200 Series



SECTIONAL VIEW, SHOWING FURNACE, CASING, AND SMOKE-PIPE, COMPLETE

For Complete Specifications, see Page 16

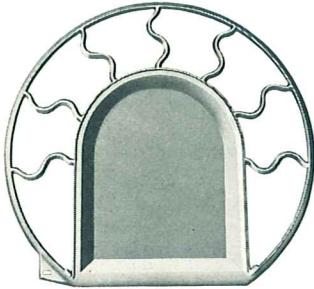


## Construction of the Wise

We here give a brief description of the construction of the different parts of the Wise Furnace, and we will ask the reader to give it the most careful and critical attention, being confident that such an examination will convince any fair-minded person that the principles on which the Wise Furnaces are built are correct and make them incomparably the best, most economical, durable, and satisfactory heaters on the market.

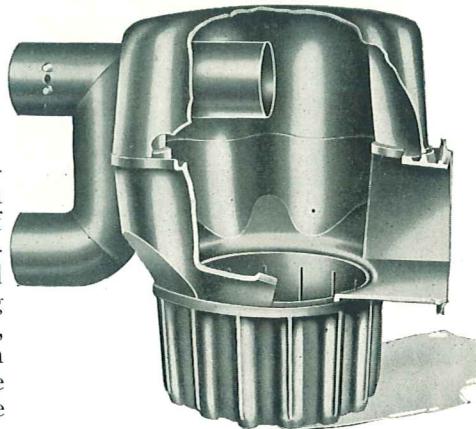
### Base

STRONG, SOLID ONE PIECE BASE



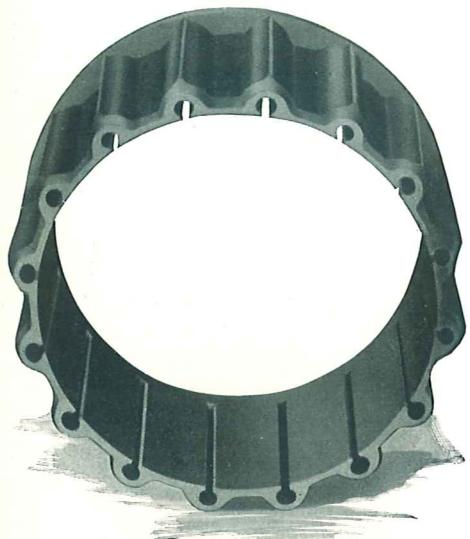
Cast in one piece forming the bottom of the ashpit and a substantial support for the outside galvanized iron casing.

### The Wise Self-Cleaning Radiator



This radiator embraces every advantage of design and construction that can be desired; for durability, economy of fuel, and radiating power it stands pre-eminent. It is made of all cast-iron, and corrugated to secure a large radiating surface. It is absolutely self-cleaning, there being no place for the accumulation of soot and ashes. Every part of the radiator is directly subject to the intense heat generated from our fire pot, insuring prime heating surface on every inch of the radiator. A clean surface insures good draft; clean heating surface insures good radiation, consequently a large saving of fuel. It is gas and smoke-proof, there being but one joint above the fire pot and that securely packed with asbestos. The corrugations of this radiator are uniform so that the top part on which the smoke flue is fastened can be placed in any position and the pipe taken off on either side or at the back of the furnace. The flue collar on the inside of this radiator is carried close to the center of the radiator so that the draft will not be to one side of the radiator, but will be distributed uniformly around the radiator, consequently heat the radiator uniformly on all sides. To prevent the heat from passing direct into chimney, we use a deep diving or indirect flue to which is attached the check damper. This also adds additional radiating surface. The heating power of this radiator is immense. Its entire surface is in closer contact with the fire and heat than that of any other radiator made.

## Wise Guaranteed Fire Pot



This part of the furnace is the most important. On it depends more than on any other part. No matter how well the remainder of the furnace may be constructed, unless the fuel is properly burned, so as to produce heat, it would not be perfect.

This fire pot is heavy, cast in one solid piece, with a series of cells and slots cast in the walls of the pot, extending from the bottom to the top, into which the air is admitted and heated before entering into and above the fuel, thus supplying the fire with heated air, enabling us to consume fully 90 per cent of the gas and smoke, secure perfect combustion, and generate intense heat. Any grade of soft coal such as slack, screening, or lignite can be successfully burned in our fire pot from the fact that the admission of air into and above the fuel at

the point of combustion cokes this fuel, and in a short time after the fire has been replenished with the dirtiest kind of coal a clean fire, like that of hard coal or coke, can be had. By taking the air into the fuel, as we do from all sides of the pot from the bottom to the top toward the center, we get for our fire surface not only the grate surface, which is the basis on which capacities are usually figured, but we have the walls of the pot from the bottom to the top around the whole circumference in connection with the grate surface, giving the Wise Furnace a fire circumference much greater than that of any other furnace on the market.

We can justly claim economy for this fire pot for the reason that all particles of fuel in the pot are subject to a uniform draft. We can burn up fuel cleaner and successfully consume soft coal of the poorest grades, as well as hard coal, lignite, and wood, and by admitting heated air through the slots and mixing with the gases and smoke we secure a perfect combustion and the complete consuming of the gases, extracting the greatest amount of heat from a given amount of fuel.

Another important feature of our fire pot besides the economical consumption of fuel is durability, which is secured by a constant circulation of air in the walls of the pot, and by admitting air all around the pot as we do, we are enabled to obtain a uniform heat at all times, so that no one part of the pot is hotter than another part; thus we have an equal expansion and contraction.

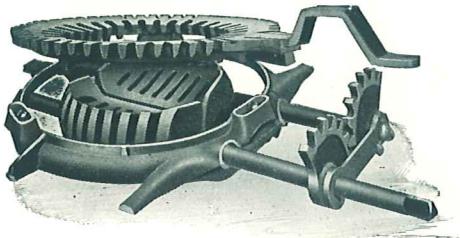
Cracked fire pots are caused from the strain resulting from the unequal expansion and contraction, which is primarily caused by the unequal heating of the fire pot. Our fire pot is practically indestructible. It will exact more heat from a given amount of fuel than any other fire pot thus far placed in the market. For economy and durability it is unequaled. *Our guarantee goes with it.*



## Ashpit and Grate

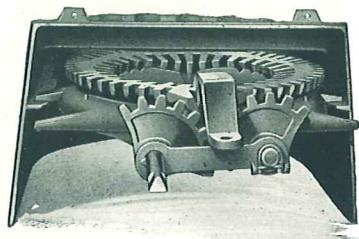
The ashpit and grate of Wise Furnaces are of the most improved type and are so constructed in relation to each other as to allow a large space for the accumulation of ashes and for the easy removal of the same, the ashpit being deep, of full size and with a large door.

The grates are so placed in the ashpit as to provide for their easy placing and replacing without disturbing any part of the furnace.



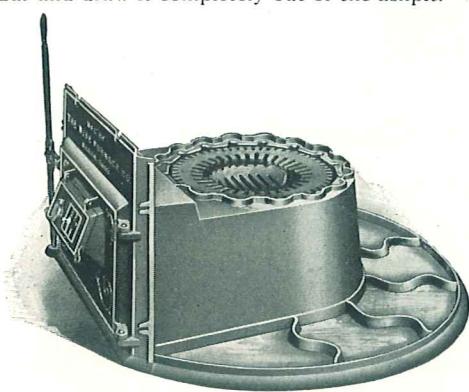
BALLBEARING ANNULAR GRATE

Cut shows the ease with which a grate can be changed when a new one is required. The entire grate slides into the ash pit on supports at the side of the ashpit and drops into place and remains there during the operation without the use of a single bolt or pin, and then when it is necessary to remove this grate all that need be done is to lift up on the shaker bar and draw it completely out of the ashpit.

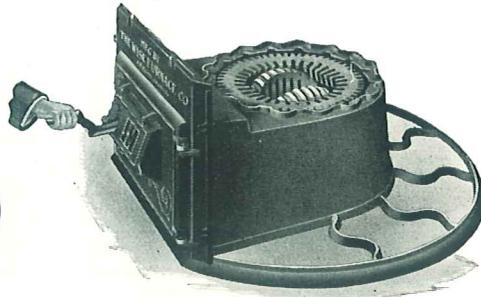


LARGE CONVENIENT ASHPIT

Of good depth, fitted to the base with a cup joint, preventing the escape of dust into the warm air chamber. The sides are straight and the door large to allow the use of an ash pan when desired and to admit the removing and replacing of grates without disturbing any other part of the furnace. The flange supporting the fire pot is so constructed as to allow the free passage of air into the cells in the walls of the fire pot.



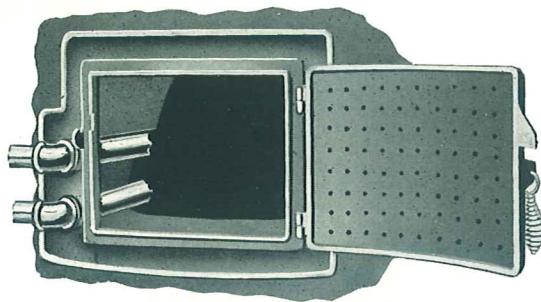
Operation No. 1 with the grate and the shaker handle in position shows how the annular or circle part of this grate is operated. This operation is the one that is used most and agitates the outside of the fire that is so necessary in this kind of a fire pot. This circle works on steel ball bearings and therefore shakes very easily, and a small child can shake this part of the grate with the fire pot full of coals as it requires almost no power.



IMPROVED DUMPING GRATE

Operation No. 2. This consists of the dumping of the basket-shaped bars in the center and is done by the attaching of a crank shaker to the master bar through the bull's-eye in the shaker door. This effectively dumps all of the ashes that have accumulated in the center of the grate without allowing any of the live coals to go through.

## Hot Water Heating for Domestic Purposes



We have so constructed all the Wise Furnaces that hot water coils can be placed in them for the heating of water for domestic use without drilling any castings or interfering with the working of the furnace in any way. This is done by placing a recess in the feed pouch through which the water pipes can be placed with little or no trouble, and without drilling the castings or reducing the capacity of the feed pouch.

## Humidity

The humidifying of the air with any kind of heating has become very desirable and in order to provide for the proper humidifying of the air in connection with Wise Furnaces we have equipped all of our different types of heaters with a humidifying tank, which is built in connection with the furnace front and is located between the feed and ashpit doors.

We refer you to the different illustrations and particularly to the illustration on page 8, which properly shows the location of the humidifying tank. This tank is of good size and proportion, easily filled and works in well with the design of the furnace front.

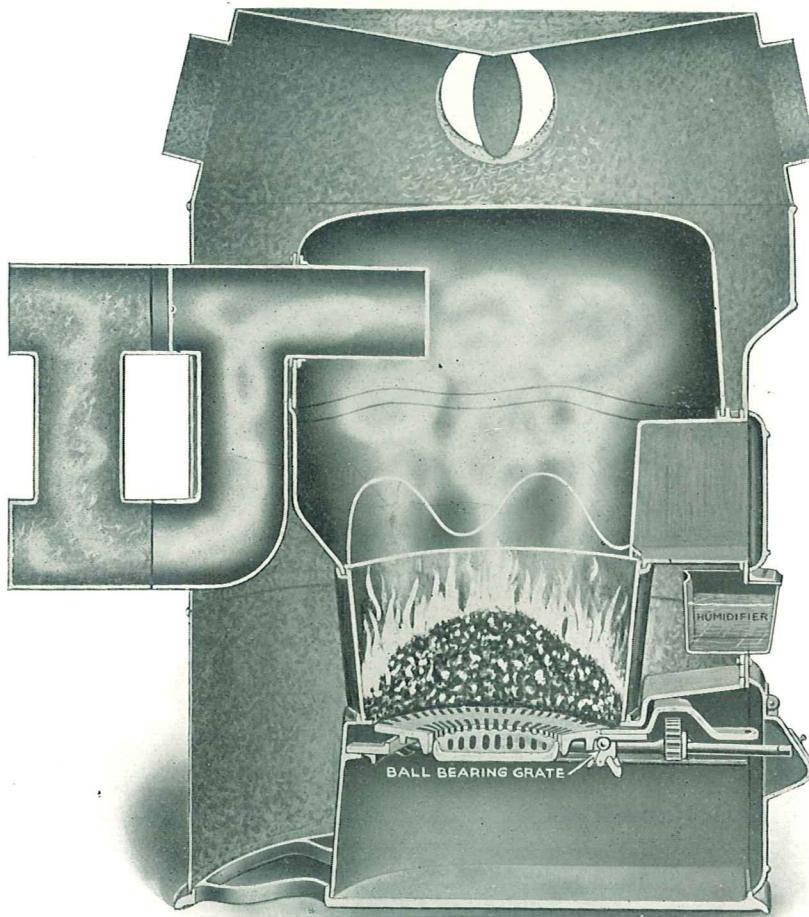
## Wise 200 Series Without Casings

The accompanying illustration shows the Wise Furnace complete with all castings, but without the casing or jacket. This will give you an idea of the massiveness of the construction and the good proportions of each part as related to the other, and the small number of joints in the assembling of the complete heater, which is a very important matter.





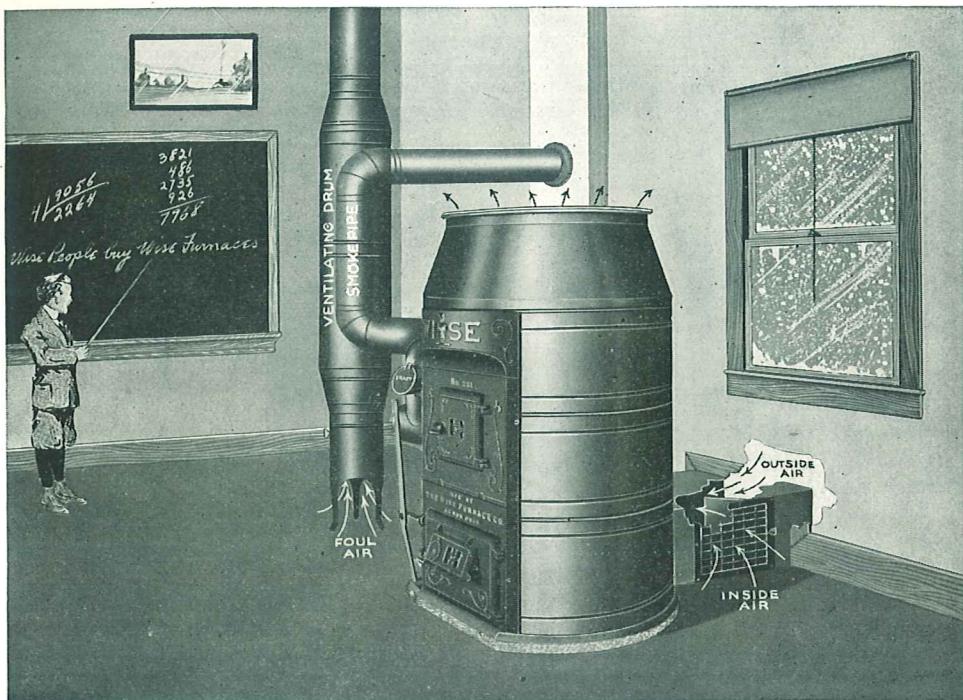
## The Inside Action of the "Wise"



SHOWING THE ACTION OF THE FIRE ON THE RADIATING SURFACE—EVERY PART OF WHICH COMES IN DIRECT CONTACT WITH THE FIRE

The illustration above clearly shows the action of the fire, and how the fuel burns from the outside towards the center. The gases accumulating from the coal cannot escape and are all burned, furnishing more heat, and eliminating all sooty and disagreeable smoke. You can also observe the action of the heat in the large self cleaning radiator. The large, roomy casing provided on all Wise Furnaces, which is so necessary to prevent the furnace from becoming overheated, and so essential for the passage of sufficient free air is plainly shown here.

## Schoolroom Heaters



### The Wise System of Heating and Ventilating Schoolrooms, Churches, Etc.

The above illustration shows an ideal system of heating and ventilating rooms where there is no basement and where no ventilating stacks are provided in the building. A study of this illustration will give a clear idea of the ventilating drum, which carries off the foul air and also the manner of admitting both inside and outside air to supply the furnace. This fresh air intake is provided with an adjustable register on either side to admit air from the inside of the building and is also connected with the outside to admit outside air. The adjusting of the inside intakes will regulate and apportion the amount of inside and outside air passing into the furnace.

Many states have laws governing the heating and ventilating of schoolrooms, etc., and the above system will comply with all of these regulations. Any of the Wise Furnaces are adaptable to this ventilating system.

## Only One Dozen "Wise" Whys Why You Should Purchase a Wise Warm Air Furnace

1st—Uses less fuel.

2nd—Gives more heat.

3rd—Is built stronger.

4th—Will last longer.

5th—Requires less repairing.

6th—Burns any and all kinds of fuel economically.

7th—Heats and ventilates the house, keeping it filled with pure, healthy, warm air.

8th—Easy to install and easy to operate.

9th—Heats water for domestic use.

10th—Has a large and efficient humidifying tank to properly moisten the air.

11th—Has embodied in its construction all the elements of durability, economy and efficiency, utilizing every possible heat unit.

12th—Fully guaranteed to the dealer and the user.

*Write us or ask your dealer for another dozen reasons why you should buy a Wise Furnace.*

## Burns Every Kind of Fuel

One reason why the Wise Furnace is so economical is because it successfully consumes soft coal of the very poorest grade as well as hard coal, lignite and wood. Even slack can be successfully burned and the fire in spite of this will be kept clean.

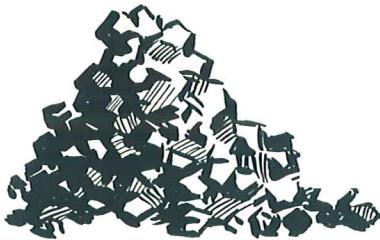
## The Story of Two Coal Piles

After all, your decision when purchasing a furnace after you have been convinced of its ease of operation and its lasting durability depends on the economical manner in which each furnace will give service.

These illustrations show the story of two coal piles contrasting the amount of fuel necessary for use in the ordinary furnace and the economical coal saving qualities of the Wise.

The Wise Furnace takes advantage of every possible unit of heat. Regardless what fuel is used the Wise makes it burn to the finest ash. This is brought about by its marvelous basket grate, its wonderfully designed fire pot and the tremendous heat radiation surface in its large radiator.

The Wise Furnace will save fuel in an abundance that will quickly pay its cost. This factor is in the last analysis its strongest sales argument. Any user of a Wise Furnace would recommend it by first stating that it produces a given amount of heat with the smallest quantity of fuel.



THE —— USERS COAL PILE



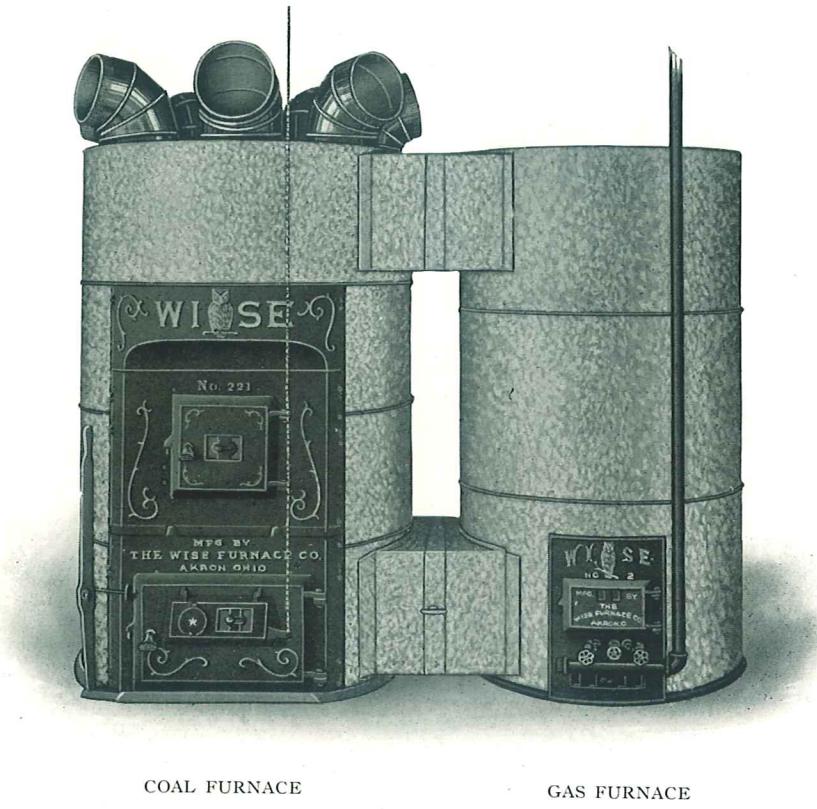
THE "WISE" USERS COAL PILE

## Wise Furnaces Use Less Fuel—Give More Heat

It is most important in selecting a furnace to give the matter of fuel consumption very careful attention. At present high prices you cannot afford to buy anything but the best, in the way of a furnace. A good heater will save you the cost over a cheap one in coal bills the first season.

When you have a Wise Furnace installed in your home you will realize at once that you are getting the maximum of heat with a minimum amount of fuel.

## The Wise Dual System



COAL FURNACE

GAS FURNACE

The above illustration shows the WISE Gas Furnace attached to and used as an auxiliary to a WISE Coal Furnace. This makes a very desirable combination as it permits of the burning of gas during the mild fall and spring months and coal during the mid-winter months, or the use of either one independently at any time or both together as may be desired.

Prices on both warm air and cold air connections will be given on application.



The Wise Furnace Co. Akron, Ohio.



## 200 Series Wise Pipeless



Installers of pipe furnaces are sometimes called upon to sell and install a pipeless furnace. For that reason we make the Wise Furnace which is described in this catalog for pipeless installations, as is shown in the above illustration.

## Complete Specifications of the Wise 200 Series

No. and Size	Diameter of Fire Pot	Diameter of Casing	Height Uncased	Size of Flue	Weight	Sq. in. Radiation	Estimated Capacities
218	18	40	48	7	900	6200	6000 to 12000
221	21	48	50	8	1300	8000	12000 to 18000
224	24	50	54	8	1500	9100	18000 to 30000
227	27	55	57	9	1750	10250	30000 to 40000
230	30	58	62	9	2000	11350	40000 to 50000
233	33	62	62	10	2400	12500	50000 to 75000

Tables, showing casing measurements, pipe and register capacities, prices and styles of fittings, registers and floor plates, or catalogs and prices of all the different types and styles of furnaces manufactured by the Wise Furnace Co., will be gladly mailed upon request.

Our Engineering Department is always ready to answer all inquiries and furnish advice on heating problems of any kind. Write us.

## Terms of Sale

Our terms are net cash 60 days after shipment, unless otherwise specially agreed.

Prices and discounts subject to change without notice.

All accounts are subject to sight draft at maturity.

Interest will be charged upon invoices not paid when due.

If purchaser sells out, mortgages stock, assigns or becomes insolvent, the account shall become due and payable forthwith.

All claims for corrections, of any nature, must be made within 10 days from receipt of goods.

When goods are delivered on cars, in good order, our responsibility ceases, and any claims for breakage must be made to transportation company.

Goods must not be returned to us, except with our consent, and when so returned, if in good order, will be credited at 10 per cent less than purchase price, with expenses deducted.

The Wise Furnace Company shall not be liable in damages for failure to perform labor or deliver goods caused by strikes, accidents, fires, or other causes beyond their control.

APPROVED BY



Wise Furnaces  
Bring Joy to  
the Home

Wise Furnaces  
Make Happy  
Homes

